

**WHAT IS CLAIMED IS:**

- Q3 2567
1. An aerosol generator, comprising:  
a laminate body having a fluid passage therein, the fluid passage being  
5 located between opposed layers of the laminate which are bonded together;  
a heater arranged to heat liquid in the fluid passage into a gaseous state; and  
a fluid supply arranged to provide a fluid to the fluid passage.
  2. The aerosol generator of Claim 1, wherein the laminate body includes  
10 metal and ceramic layers, inner surfaces of the metal layers being bonded together at  
first and second locations separated by the fluid passage, the ceramic layers being  
bonded to outer surfaces of the metal layers and the fluid passage being a capillary  
sized passage having a maximum width of 0.01 to 10 mm.
  - 15 3. The aerosol generator of Claim 2, wherein the metal layers comprise  
copper sheets.
  4. The aerosol generator of Claim 2, wherein the heater is located on at  
least one of the ceramic layers.
  - 20 5. The aerosol generator of Claim 1, wherein the layers are bonded  
together by an adhesive.

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6. The aerosol generator of Claim 1, wherein the layers are metallurgically bonded together.

5 7. The aerosol generator of Claim 1, wherein the heater comprises a layer of resistance heating material located along the fluid passage.

10 8. The aerosol generator of Claim 2, wherein the ceramic layers comprise layers of a material selected from the group consisting of alumina, zirconia, silica and mixtures thereof.

9. The aerosol generator of Claim 1, wherein the heater comprises a layer of platinum.

15 10. A method of making the aerosol generator of Claim 1, comprising arranging a mandrel between the opposed layers of the laminate, bonding the opposed layers together, and forming the fluid passage by removing the mandrel.

20 11. The method of Claim 10, wherein the step of arranging the mandrel in the laminate comprises locating the mandrel such that one end of the mandrel is spaced inwardly from a periphery of the laminate and an opposite end of the mandrel is located outwardly of a periphery of the laminate.

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12. The method of Claim 10, further comprising forming the heater on the laminate, the heater being sputtered, printed, adhesively bonded or coated on a layer of the laminate.

5 13. The method of Claim 10, wherein the fluid passage is formed so as to extend in a linear or non-linear direction, the fluid passage being a capillary sized passage having a maximum width of 0.01 to 10 mm or transverse area of  $8 \times 10^{-5}$  to 80 mm<sup>2</sup>.

10 14. The method of Claim 10, further comprising forming the heater on the laminate and attaching contacts which pass an electrical current through the heater.

15 15. The method of Claim 10, further comprising connecting the fluid passage to a source of fluid which can optionally comprise a medicated material.

16. The method of Claim 10, further comprising attaching a power supply to the heater for heating the heater.

20 17. A method for generating an aerosol with the aerosol generator according to Claim 1, comprising the steps of:

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(a) supplying fluid to a fluid passage;  
(b) heating the heater so as to volatilize the fluid in the fluid passage; and  
(c) forming an aerosol by ejecting the volatilized fluid out of an outlet of the fluid passage.

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18. The method of Claim 17, wherein the heater heats the fluid in the fluid passage by thermal conduction through at least one of the layers of the laminate.

10 19. The method of Claim 17, wherein the volatilized fluid is ejected through an outlet at one side of the laminate.

15 20. The method of Claim 17, wherein a predetermined volume of fluid is supplied to the fluid passage and the predetermined volume of fluid is volatilized by the heater, the fluid passage being a capillary sized passage having a maximum width of 0.01 to 10 mm or transverse area of  $8 \times 10^5$  to 80 mm<sup>2</sup>.